

Automotive Lift Inspections

The following document outlines the requirements for automotive lifts as set forth by ANSI/ALI ALOIM-2000 Automotive Lift Institute Standard for Automotive Lifts - Safety Requirements For Operation, Inspection and Maintenance.

Operation of Lifts

1. Owners/employers must ensure that operators of automotive lifts are instructed in the safe use and operation of the lift using the manufacturer provided instructions and warning labels.
2. Owners/employers are required to appropriately document operator training by completing an operator training log. (Appendix A-1)
3. Operators shall operate the automotive lift only **AFTER** being properly trained.
4. Operators shall use all applicable safety features provided on the automotive lift and operate the lift in accordance with the instructions furnished by the lift manufacturer.
5. Operators shall be responsible for maintaining the cleanliness and orderliness of the lift and its surroundings so that the lift may be safely operated.
6. Operators shall conduct a daily inspection of automotive lifts prior to use. Features to be inspected are outlined in Appendix A-2.
7. Lift operators shall become familiar with the vehicle manufacturer's recommended lift points contained in the vehicle shop service manual. Operators should notify their supervisor if there are questions regarding lift points.
8. Operators are required to report any unsafe operating conditions observed before, during or after operation of the lift. The lift must be locked or tagged out until the problem has been determined and qualified automotive lift service personnel have made appropriate repairs.
9. Accessories used by operators on automotive lifts must be manufactured in compliance with ANSI/ALI ALCTV-1998 and shall be applicable for use on the specific lift. No homemade accessories.

Periodic Qualified Inspection

Note: Some activities performed during inspections are subject to compliance with established OSHA standards including, but not limited to: personal protective equipment, walking-working surfaces, hazardous materials, lockout/tagout, compressed gas and compressed air equipment and; machinery and machine guarding. Owners/employers are responsible for ensuring compliance with the requirements of the applicable standards.

1. Owners/employers shall establish a periodic inspection procedure in accordance with the recommendations of the lift manufacturer.
2. A "qualified" automotive lift inspector shall have the following qualifications:
 - a) knowledge of personal safety practices necessary to perform routine and periodic inspections;
 - b) familiarity with industry terminology;
 - c) ability to read and understand equipment manuals, drawings and parts lists;
 - d) knowledge of purpose and function of all components, devices and accessories commonly employed on automotive lifts;
 - e) working knowledge of electrical and electronic control circuit principles as applied to the operation of pumps, motors, valves and switches;
 - f) working knowledge of mechanical principles as applied to structures, machines, mechanisms and the effects of traction on ropes, chains and sheaves;
 - g) working knowledge of hydraulic principles as applied to the operation of valves, pumps, cylinders (plungers) and piping;
 - h) working knowledge of pneumatic principles as applied to the operation of valves, compressors, cylinders (plungers), pressure vessels and piping; and
 - i) knowledge of the many and varied types and styles of automotive lifts, their uses, and any limitations or restricted applications.
3. Training for "qualified" inspectors must be achieved through experience in installation or field service work for users, manufacturers, distributors or service organizations for automotive lift products.
4. Documentation – a record of each periodic inspection shall be prepared and maintained noting all observations and findings, as well as, all repairs or replacements accomplished. The owner/employer must acknowledge the findings of the inspection by signing the inspection certificate (Appendix A-3).
5. Frequency – owners/employers shall follow the recommendations of the manufacturer as to frequency. As a minimum, all inspection points (Appendix A-4) must be checked and documented at least **annually**.

Maintenance

1. Preventative maintenance procedure – owners/employers shall establish a periodic preventative maintenance procedure in accordance with the recommendations of the lift manufacturer.
2. Preventative maintenance personnel qualifications – preventative maintenance technicians shall meet the qualifications of a lift operator, be familiar with and follow the appropriate OSHA standards and possess demonstrated proficiency in the use of tools in the performance of preventative maintenance duties.
3. Preventative maintenance personnel training – personnel qualified to perform preventative maintenance of automotive lifts should be achieved through formal training or experience in automotive lift operation and general equipment maintenance.
4. Preventative maintenance documentation – a thorough record of each preventative maintenance procedure performed shall be prepared and maintained by the owner/employer.
5. Preventative maintenance frequency – preventative maintenance shall follow the recommendations of the lift manufacturer.

Repairs

Repairs should be conducted by qualified service repair technicians.

Modifications

There shall be no modifications or reconstruction made to any automotive lift without the express written permission of the manufacturer.

Disclaimer

The points listed are a summary of the ANSI/ALI ALOIM-2000 Automotive Lift Institute Standard for Automotive Lifts - Safety Requirements For Operation, Inspection and Maintenance and are not written verbatim. A full version of the standard is available from the Automotive Lift Institute at:

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Operator Training Log

Employer: _____

Operator: _____

Employee #: _____

Lift
Manufacturer: _____

Lift Model: _____

Serial No: _____

Lift Capacity: _____

Operator qualifications: _____

Training received:

Manufacturer's Instructions

Warning Labels

"Lifting It Right" Video

Lifting Point Guide

Safety Tips

Notes: _____

I certify that I possess the qualifications for an automotive lift operator and that I have received the required training to operate the lift.

Operator Signature

Date

I certify that the operator shown above possesses the qualifications to be an automotive lift operator and has received the required training.

Supervisor Signature

Date

Operator Daily Lift Inspection Checklist

Operator: Review all items prior to use of the lift.

No.	Lift Checkpoint	OK	Fix	Comments
1	Accessibility and readability of the operating procedures, safety tips and generic safety material			
2	Accessibility and readability of safety warning labels			
3	Readability of the rated load capacity			
4	Proper operation of the lift controls, restraints and locking devices			
5	Deformation or excessive wear of any of the lift structural components			
6	Deformation or excessive wear of other components such as hoses, electrical wires, drive chains, cables or screws			
7	Damage or excessive wear on any of the lift contact points which engage the vehicle during lifting			
8	Evidence of hydraulic or pneumatic leaks			
9	Unusual noises, sudden movements, erratic operation or evidence of chips or filings during use			
10	Cracks or loose concrete around floor anchor bolts, if employed			

Inspection Certificate

Lift Owner/Employer: _____

Qualified Inspector Name: _____

Qualified Inspector Company: _____

Lift Manufacturer: _____

Lift Model: _____ Serial No.: _____

Lift Capacity (pounds): _____

Lift Type:

Hydraulic
Mechanical

Hydraulically driven mechanical
Pneumatic

Inspection Points

Attach checklist furnished by manufacturer or equivalent checklist from ALI ALOIM-2000 indicating the observations and findings of all points of inspection recommended by the manufacturer, any adjustments made and parts replaced.

I certify that I meet the requirements of ALI ALOIM-2000 paragraph 5.2 for qualified lift inspector and that I have successfully completed the training for qualified lift inspector as described in ALI ALOIM-2000 paragraph 5.3.

Inspector Signature Date

This inspection is not intended as a guarantee against failure or malfunction. Its purpose is to verify that the lift has been maintained in a reasonable and safe manner and that the supporting documents supplied by the manufacturer are accessible to the operator to assist in the safe operation of the lift and to call attention to repairs that may be needed to correct existing or potential malfunctions where such can be determined by visual and ordinary examination methods. No liability for the use, operation, management or control of this lift is assumed by the inspector or the inspector's company.

Owner/employer Signature Date

Maintain this inspection certificate with records pertaining to the lift.

Appendix A-4

Periodic Inspection Checklist

This checklist is to be used for all automotive lifts and for accessory wheels-free devices employed on lifts with runway superstructures. Use supplementary periodic inspection checklists for specific automotive lift classes.

Inspection Points – All Lifts (5.6.2)

1. Record location of manufacturer instructions or generic instructions.
2. Check accessibility and readability of safety warning labels.
3. Record rated load capacity of the lift.
4. Record manufacturer name, model number and serial number.
5. Confirm adequacy of clearances around lift.
6. Examine all structural components including welds.
7. Examine electrical components and wiring.
8. Check the lift controls.
9. On lifts using runways, check to ensure proper operation of all features.
10. On lifts using swing arms, check telescoping stops.
11. On lifts requiring swing arm restraints, check for proper function.
12. Check all fastening devices for tightness including floor anchor bolts.
13. Check exposed surfaces and edges.
14. Operate the lift and check the operation of the positive stop and the lift locks.
15. On lifts employing adapters, check condition and proper operation.
16. With a representative vehicle on the lift check the lowering speed.
17. Check all points requiring lubrication.
18. On lifts equipped with lateral synchronization or equalization systems, check the operation of the systems.

19. On lifts incorporating working platforms, railings and stairways, check the railings and the walking surfaces.
20. On lifts incorporating overhead structures, verify the safety shutoff.
21. Inspect all cables and chains.
22. Check the tracking and level winding of cables and chains.
23. Report unguarded pinch points.
24. Confirm single point operation of multiple powered posts.
25. Report water in sub-floor pits or enclosures.

**Supplemental Inspection Points
Hydraulic and Hydraulically Driven Mechanical Lifts (5.6.3)**

1. Check all accessible piping, tubing, hose, valves and fittings. Review lift oil consumption records.
2. Operate lift through full excursion and observe.
3. With lift loaded, stop the load at midpoint of travel and observe.
4. Check with operator to ascertain any unusual operation characteristics.
5. On lifts which incorporate trench covers, verify the proper operation.
6. On air-oil lifts check for low oil control.
7. Confirm cylinder venting provisions.
8. Confirm rotation prevention device on single post lifts.
9. On lifts utilizing pumping units, confirm adequacy of oil level at fully raised position.

**Supplemental Inspection Points
Mechanical and Hydraulically Driven Mechanical Lifts (5.6.4)**

1. Check for the proper operation of the slack suspension cable or slack suspension chain sensing system.
2. Check the operation of the screw drive systems. Check for proper lubrication.
3. Check screw drive systems for proper operation of the follower or safety nut.

4. Run the lift through its full cycle and check for shut off at top and bottom of travel. Check the operation of multiple screw systems.
5. On mobile wheel engaging lifts, check the mobility of the individual units.

**Supplemental Inspection Points
Pneumatic Lifts (5.6.6)**

1. Check all accessible piping, tubing, hose, valves and fittings for leaks.
2. With lift loaded, stop the load at midpoint of travel and observe.
3. Check with operator to ascertain any unusual operating characteristics.
4. Confirm presence of pressure regulator in supply line.
5. Inspect air bag or bellows for damage.